and "live" access periods of 90 days each, so that local wholesale customers can become familiar with the interfaces before committing to them. For each electronic interface, SBC provides local wholesale customer representatives extensive training, workshops and written materials that allow them to submit complete and valid service orders. SBC likewise has verified through internal as well as independent, third-party testing, that, as local wholesale customers shift their manual orders to electronic interfaces, those interfaces will be capable of handling high volumes of transactions efficiently.

LOCAL WHOLESALE CUSTOMER EDUCATION

SBC has devoted considerable time and resources to develop educational courses and materials to assist CLECs to enter SBC's local markets.

Small class size (maximum of 12) and in-class exercises enables SBC's instructors to ensure a quality learning experience and level of understanding for each local wholesale customer student. Overall satisfaction rating on our workshops and OSS classes is 98 percent with as many as 90 percent of the students rating our sessions either "extremely" or "very" satisfactory.

SBC has absorbed development costs for its workshops and classes and its financial commitment to local wholesale customer education has grown from nearly $1 million in 1997 to approximately $3 million in 1998. We already offer nine workshops and 16 OSS classes totaling 82 class days and the number continues to grow. We develop new workshops as issues are identified. In addition to instructor guides, student workbooks and reference materials presented to students in class, local wholesale customer workshop and OSS class participants are provided the material on computer disk to enable their training personnel to easily adapt the

material and train their service representatives to meet their customer care and business plan needs. Updated job aids and user guides from the OSS classes are available, on-line, to the local wholesale customers that subscribe to our OSSs.

To make updated reference material and other information easily accessible to each local wholesale customer's personnel, SBC has created an Internet website (http://www.clechb.com) that includes many useful resources. The website provides electronic access to our CLEC Handbook (updated weekly as necessary); Accessible Letters that notify local wholesale customers of the introduction of new telecommunications services, timely information on the introduction of new service promotions available for resale; and reference material for ordering of resold services, unbundled network elements, interconnection and local number portability.

Many of the reference materials used in SBC's local wholesale workshops and classes are included on the website including the CLEC Handbook, Local Service Ordering Requirements, Guidelines for Local Interconnection, Directory Matters Reference Guide, and USOC manual. Our

local wholesale handbooks, workshops, classes, and reference materials are continually evolving to ensure that all of our local wholesale customers have timely and accurate resources to implement their interconnection and resale agreements and begin providing services to their end users. Potential local wholesale customers have access to a section of the website that provides information on how to become a CLEC in our serving areas. Information provided includes contacts for each state commission and an overview of the local certification process; descriptions of resale, UNE and interconnection options; how to initiate negotiations; and, the name and telephone numbers of the various customer service centers that interface with our local wholesale customers.

A videotape, "Future Communications: A Brief Overview of Working with Southwestern Bell, Pacific Bell and Nevada Bell Telephone Companies to Provide Local Telephone Service," also was developed in 1998 by SBC and is provided to potential local wholesale customers.

In addition to the website, video, formal workshops and OSS classes which are available, internal work groups provide one-on-one assistance to our local wholesale

customers. For instance, SWBT managers in our Carrier Relations organization work with new facilities-based local service providers and their vendors to learn how to accurately complete records necessary for industry-wide intercompany compensation. In this way, we help our customers fulfill their obligations under state rules for exchange of local and toll message billing records and compensation among various primary exchange carriers.

PROCESS IMPROVEMENTS MADE BY SBC

The following discusses examples of process improvements that have been instituted in SBC's operations to better meet local wholesale customer needs and expectations:

Fixed Order Confirmations

In early 1997 Pacific Bell's RLSC experienced delays in returning firm order confirmations ("FOCs")on orders for resold service. Pacific Bell addressed the missed confirmations by introducing systems for tracking faxed orders and for submitting orders electronically. For 1998, year-to-date, FOCs were issued within 4 hours of an electronic order nearly 100 percent of the time.

Billing System and Operational Support System Improvements

In May of 1998, Pacific Bell commenced its conversion from the Carrier Access Billing System ("CABS") to the Customer Record Information System ("CRIS") for resale orders, in conjunction with the introduction of new electronic interfaces. CRIS is the billing system used by Pacific Bell for its retail operations. This change addressed root-cause ordering, provisioning, and billing problems experienced by California CLECs during 1996 and

early 1997. As a result of this conversion, Pacific's local wholesale customers now have direct access to Pacific's ordering systems.

Collocation

Also, in California, high demand for physical collocation in Pacific Bell's central offices has caused available space to fill-up quickly. In fact, Pacific Bell has provisioned 395 physical collocation arrangements to CLECs in California as of the end of June 1998 with another 274 under construction to be complete by the end of August 1998 - more than in any other state in the country. Pacific Bell therefore has taken extraordinary steps to expand the space available for collocation use, steps beyond what we believe the Act requires. In offices where space was unavailable, Pacific Bell created new space for CLECs' use through such steps as removing non-functioning equipment, relocating administrative offices, and offering common collocation. These changes enabled Pacific Bell to offer additional space in 53 central offices that were previously out-of-space. In addition, SBC has made virtual collocation generally available to requesting CLECs, even though the 1996 Act only requires that it be offered when adequate

physical collocation space is not available. Moreover, Pacific Bell has offered other innovative solutions which eliminates the need for physical or virtual collocation offering, instead to run lines from the central office to a CLEC's selected location in a neighboring building.

Number Portability

In its five states, SWBT recently revised its procedures for processing CLEC requests for porting telephone numbers. Interim Number Portability ("INP") enables customers of facilities-based carriers to retain their existing telephone number even after they no longer subscribe to SWBT service. INP is an extremely complex process that requires a high degree of coordination between SBC and the CLEC. If the parties are not synchronized during implementation of INP, the conversion can fail and temporary loss of service to the CLEC's new end user customer can result.

In response to coordination problems of this sort, SWBT took aggressive steps to improve the INP process. To begin with, SWBT added additional customer testing technicians to accommodate high INP order volumes, temporarily assigned service representatives exclusively to

performing quality checks on INP orders to ensure accuracy, and devoted customer service representatives to scheduling all INP orders and ensuring that INP cutovers are planned, coordinated, and implemented as requested by the CLEC with no noticeable service interruptions. Additionally, SWBT initiated log procedures to track communications and provided personnel involved in INP cutovers with training that enables them to identify, prior to completing the actual cut, INP orders that will require an unusual degree of coordination with the CLEC. SWBT established in Dallas an INP/UNE quality check group to ensure that INP (as well as unbundled network element) orders are processed without errors. It also imposed an internal checkpoint in the process to ensure that distributed INP orders are sent throughout SWBT's network and provisioned correctly. SWBT also has assigned a single supervisor to be a point of contact and to be responsible for tracking the INP process, and established a jeopardy code that will stop the processing of an order when a supplemental order has been received. Finally, SWBT has initiated an internal weekly conference call to identify root causes of INP failures and to develop generally applicable solutions to these problems.

NEW ENTRANTS' MARKET ENTRY STRATEGY

The following quotes illustrate the local market strategy being employed by most new entrants, i.e., to target higher margin customers:

- "Our strategy is not in the consumer business . . . [i]t's very difficult for us to find a way to make economic sense out of the advertising budgets, the customer service budgets, etc., required to be in the consumer business."[1]

- "[N]ot AT&T, not MFS or anyone else, is going to build local telephone facilities to residential customers. Nobody ever will, in my opinion."[2]

- AT&T will build competitive local facilities only "where and when it makes economic sense."[3]

- "We don't play in residential."[4]

- "[MCI's] focus is on high-value customers who use multiple services."[5]

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[1] M. Mills, WorldCom Would Shift MCI's Focus, Washington Post, Oct. 3, 1997, at A1 (quoting WorldCom Vice Chairman John Sidgmore).

[2] M. Mills, Hanging Up on Competition?, Washington Post, June 1, 1997, at H1 (quoting WorldCom CEO Bernard Ebbers).

[3] AT&T, 1996 Annual Report 3 (1997), former AT&T President Robert Allen.

[4] T.J. Mullaney, Competition Calling: Anyone There?, Baltimore Sun, Apr. 6, 1997, at 1D (quoting Ron Vidal, WorldCom Vice President for New Ventures).

[5] MCI, First Quarter 1997 Investor Bulletin, http://investor.mci.com/investor_pubs/quarterlies/qr_1997/ r_1997-1.html.

- "[WorldCom's] religious focus is on the business customer . . . [i]t is a jihad . . . [t]his other market is something new."[6]

- MCI has acknowledged that its local strategy has been to target high value business customers because: "Why did Willie Sutton rob banks? You go where the money is."[7]

- "AT&T aims to focus much of its future marketing on the top tier of high-spending consumers of communications services. These are the 20% of people who account for 80% of the company's $6 billion in annual profit."[8]

- MCI has admitted that its "focus is on high-value customers who use multiple services" and that it intends to "continue to transition away form low-value Mass Markets customers who respond only to price promotions" and "continue to allocate our resources toward the highest margin opportunities."[9]

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[6] M. Mills, WorldCom Clarifies MCI Plans, Washington Post, Oct. 4, 1997, at D1 (quoting John Sidgmore).

[7] S. Ginsberg, MCI's Buzzing, San Francisco Business Times, August 1-7, 1997, at 20 (quoting Bill Berkowitz, MCI San Francisco executive).

[8] J. Keller, AT&T Sets Bold New Business Strategy, September 18, 1997, at A3 (quoting John Zeglis, AT&T Vice-Chairman).

[9] MCI Investor Report, September 19, 1997 (quoting Douglas L. Maine, MCI Chief Financial Officer).

AFFIDAVIT OF DENNIS W. CARLTON

I, Dennis W. Carlton, being duly sworn, depose and say:

I am Professor of Economics at the Graduate School of Business of The University of Chicago. I received my B.A. in Applied Mathematics and Economics from Harvard University and my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I have served on the faculties of the Law School and the Department of Economics at The University of Chicago and the Department of Economics at the Massachusetts Institute of Technology. I specialize in the economics of industrial organization, which is the study of individual markets and includes the study of antitrust and regulatory issues. I am co-author of the book Modern Industrial Organization, a leading text in the field of industrial organization, and I also have published numerous articles in academic journals and books. In addition, I am Co-Editor of the Journal of Law and Economics, a leading journal that publishes research applying economic analysis to industrial organization and legal matters. I have served as an Associate Editor of the International Journal of Industrial Organization and Regional Science and Urban Studies, and have served on the Editorial Board of Intellectual Property Fraud Reporter.

In addition to my academic experience, I am President of Lexecon Inc., an economics consulting firm that specializes in the application of economic analysis to legal and regulatory issues. I have served as an expert witness before various state and federal courts, and I have provided expert witness testimony before the U. S. Congress and a variety of state and federal regulatory agencies, including the Federal Communications Commission. I also have served as a consultant to the

Department of Justice on the Merger Guidelines of the Department of Justice and Federal Trade Commission, as a general consultant to the Department of Justice on antitrust matters, and as an advisor to the Bureau of the Census on the collection and interpretation of economic data. I also have provided testimony on telecommunications matters before Congress, Federal Courts, federal and state regulatory agencies and have published academic articles on telecommunications issues.

I have been asked by SBC Communications Inc. ("SBC") to evaluate the competitive consequences of SBC's plan to become a nationwide supplier of local exchange services by merging with Ameritech and entering into the provision of local service in 30 metropolitan areas outside of the home territories of SBC and Ameritech. I conclude that the successful implementation of SBC's "national/local" plan will benefit consumers directly by creating a significant new competitor in the provision of local telecommunications services. I also conclude that the proposed transaction enables SBC to pursue the national/local plan.

The attached report contains the results of my analysis and the bases for my conclusions.

Dennis W. Carlton

Dennis W. Carlton

Subscribed and sworn to before me
this day of July 20, 1998

Margaret J. Kush

Notary Public

"OFFICIAL SEAL"
MARGARET J. KUSH
Notary Public, State of Illinois
My Commission Expires 7-26-99

REPORT OF DENNIS W. CARLTON

July 20, 1998

Table of Contents

I. QUALIFICATIONS AND OVERVIEW

1. I, Dennis W. Carlton, am Professor of Economics at the Graduate School of Business of The University of Chicago. I received my B.A. in Applied Mathematics and Economics from Harvard University and my M.S. in Operations Research and Ph.D. in Economics from the Massachusetts Institute of Technology. I have served on the faculties of the Law School and the Department of Economics at The University of Chicago and the Department of Economics at the Massachusetts Institute of Technology. I specialize in the economics of industrial organization, which is the study of individual markets and includes the study of antitrust and regulatory issues. I am co-author of the book Modern Industrial Organization, a leading text in the field of industrial organization, and I also have published numerous articles in academic journals and books. In addition, I am Co-Editor of the Journal of Law and Economics, a leading journal that publishes research applying economic analysis to industrial organization and legal matters. I have served as an Associate Editor of the International Journal of Industrial Organization and Regional Science and Urban Studies, and have served on the Editorial Board of Intellectual Property Fraud Reporter. A copy of my curriculum vitae is attached as Exhibit 1 to this report.

2. In addition to my academic experience, I am President of Lexecon Inc., an economics consulting firm that specializes in the application of economic analysis to legal and regulatory issues. I have served as an expert witness before various

state and federal courts, and I have provided expert witness testimony before the U.S. Congress and a variety of state and federal regulatory agencies, including the Federal Communications Commission. I also have served as a consultant to the Department of Justice on the Merger Guidelines of the Department of Justice and Federal Trade Commission, as a general consultant to the Department of Justice on antitrust matters, and as an advisor to the Bureau of the Census on the collection and interpretation of economic data. I also have provided testimony on telecommunications matters before Congress, Federal Courts, federal and state regulatory agencies and have published academic articles on telecommunications issues.

3. I have been asked by SBC to review and evaluate the competitive consequences of SBC's plan to become a nationwide supplier of local exchange services by merging with Ameritech and entering into the provision of local service in 30 metropolitan areas outside of the home territories of SBC and Ameritech.

4. My principal conclusions are as follows:

- The successful implementation of SBC's "national/local" plan will benefit consumers directly by creating a significant new competitor that provides local, long distance and data telecommunications services for business and residential customers in a large number of metropolitan areas. Such entry would significantly increase competition in the provision of local exchange services, both within and outside SBC's and Ameritech's territories, and for both business and residential customers.
- SBC's national/local plan responds to rapid and dramatic changes in this industry. These include the growing demand for long distance data and voice services, the development of competition for traditional circuit-

switched networks from Internet Protocol and other data communications technologies, and the growing demand among large multilocation customers for a single supplier to provide a bundle of local, long distance and data services. Absent this plan to deploy service outside their home regions, SBC and Ameritech have been hampered in competing for multilocation customers.

- The transaction enables SBC to pursue the national/local plan. SBC and Ameritech each had concluded that it could not deploy a strategy of providing facilities and services in a broad number of areas outside of its home region by itself, and that a transaction like the merger of SBC and Ameritech was necessary. The combination of the proposed transaction and out-of-region deployment of facilities and services together yields broad geographic coverage for many large business customers. Successful deployment of this strategy for large business customers gives SBC/Ameritech the economic base on which services to smaller businesses and residences can be built.
- Even if one were to conclude, contrary to the evidence, that either SBC or Ameritech would have pursued some type of out-of-region strategy in the absence of this (or a similar) transaction, this transaction still would benefit consumers by enabling new facilities and services to be deployed more rapidly than otherwise would be possible.
- There are a number of other firms deploying local services using a variety of different strategies. The SBC/Ameritech strategy is only one of many. The transaction will not interfere with the ability of others to

pursue these strategies. It is precisely these circumstances in which regulators must be most cautious about interfering with new entry and deterring investments that are aimed at benefitting consumers.

5. The remainder of this report provides the basis for these conclusions: Section II presents a brief overview of SBC's national/local plan and describes how it creates a new competitor which will benefits consumers. Section III reviews major industry trends and discusses how SBC's national/local strategy responds to these trends. Section IV show that the proposed transaction enables SBC to pursue the national/local plan. Section V briefly reviews other strategies now being deployed by other firms and shows that the proposed transaction leaves many firms competing to establish market positions as competitive local exchange carriers.

II. THE NATIONAL LOCAL PLAN CREATES A NEW LOCAL EXCHANGE COMPETITOR IN MANY AREAS AND BENEFITS CONSUMERS

6. SBC has stated publicly, and confirmed in its testimony here, that its national/local plan will establish a new facilities-based provider of local telecommunications services in 30 large metropolitan areas:[1]

- The plan anticipates the deployment of switches in the 30 largest MSAs outside of SBC's and Ameritech's home region over the next three years and the addition of roughly 2,900 miles of new fiber optic cable. SBC plans to begin deploying facilities and services in the largest out-of-

1. See Affidavit of James Kahan, SBC's Senior Vice-President for Corporate Development, ¶ 27-45, for an overview of the national/local plan.

region metropolitan areas (including New York, Washington, Philadelphia, and Atlanta) in 1999.

- SBC plans to provide local exchange, long distance and data services to large business, small business and residential customers. Network design and data integration services for large business customers will also be provided.
- Within three years, SBC will have facilities and other services in each of the 50 largest metropolitan areas in the U.S. Outside of its 13 state home region,[2] SBC will offer services in nearly as many areas as either WorldCom or AT&T/Teleport, the most widespread of the competitive local exchange carriers (CLECs).

7. SBC has made a significant and serious commitment to the national/local strategy, repeatedly stressing that both the merger with Ameritech and 30-city entry plans are essential elements of its future success. This commitment has been made in representations to investors, analysts, the Congress, the Securities and Exchange Commission, the Department of Justice, the Federal Communications Commission and state regulators. SBC also has emphasized that this strategy needs to be implemented quickly in order to respond to rapid changes in demand and competitive conditions in the industry now occurring. Indeed, I understand that

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2. This includes SBC's seven current states (Texas, Missouri, Oklahoma, Arkansas, Kansas, California and Nevada) plus Connecticut, as well as the five states in Ameritech's home region (Illinois, Indiana, Wisconsin, Michigan and Ohio).

SBC's Board of Directors approved this transaction based on the deployment of the out-of-region strategy.[3]

8. Although SBC plans to start by marketing a broad range of telecommunications services to large businesses, this strategy will have much broader competitive benefits. Large businesses are intended to be the "anchor tenants" of the 30-city out-of-region business. Significant investments in switching technology and transport facilities are planned to serve these customers. Because, by definition, these investments are being made in 30 of the most populated areas of the country, the facilities will be proximate to many other potential customers. SBC believes that it will be able to serve these additional customers effectively, given the presence of its "anchor tenants."

9. SBC intends to market services to residential customers, as well as business customers. SBC believes that state regulators have required incumbent LECs to serve some customers at capped regulated rates without regard to the profitability of doing so.[4] Yet, SBC has concluded that there are many residential customers who are interested in purchasing a bundle of local exchange, long distance, Internet access, and other services (such as wireless services in some areas) that SBC should be able to serve profitably.

10. Successful implementation of this strategy will benefit consumers within SBC's and Ameritech's region as well. If SBC is successful, others will likely mimic the strategy within SBC's and Ameritech's region. Similarly, increased competition

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3. Kahan Affidavit, ¶ 84-85.

4. Kahan Affidavit, ¶ 21.

will spur innovation and higher levels of customer services, as well as reductions in price for customers in all areas.

11. While many CLECs have established facilities and services throughout the United States, the provision of many local exchange services remains concentrated. SBC's entry into the provision of local exchange services outside its home territory creates a significant new competitor that promises to bring significant benefits to a wide range of consumers. To understand the magnitude of the potential benefits, note that even a one percent decline in local service rates in the 30 cities where SBC intends to deploy facilities and services would result in annual savings to consumers of roughly $175 million.[5]

III. THE NATIONAL/LOCAL PLAN RESPONDS TO CHANGES IN INDUSTRY CONDITIONS

A. Changes in Demand and Supply Conditions

12. The telecommunications industry is in the midst of fundamental changes in demand, supply and regulatory conditions.[6] These trends include:

- Demand for long distance voice services, and to a greater extent, data services has been growing rapidly. In comparison, demand for the local

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5. This figure is based on the year 2000 values for the estimated number of lines and revenue per line used in SBC's financial modelling of the national/local plan. This figure does not reflect either long distance savings that consumers may realize as the result of the transaction or savings to in-region customers.

6. The FCC recognized in its Bell Atlantic/NYNEX decision that "the Commission may consider the trends within and needs of the industry ... and the complexity and rapidity of change in the industry" in evaluating the competitive impact of a merger. (FCC, Memorandum Opinion and Order in Bell Atlantic/NYNEX, August 14, 1997, ¶32.)

exchange services that the Regional Bell Operating Companies (RBOCs) provide has grown much more slowly. For example, revenue earned by the RBOCs has grown by less than 5 percent annually in recent years.[7] At the same time, data revenue is forecast to grow nearly 25 percent annually in coming years.[8]

- Technologies for providing voice and data services are rapidly converging. This is reflected in part in the current deployment of Internet Protocol (IP) and other data technologies for voice service. Circuit-switched networks, such as those operated by the major incumbent local and long-distance providers, are now subject to competitive pressure from data networks. In recent months, Qwest, Level 3, Frontier, Sprint and others have announced deployment of IP or data networks for voice communications.[9] These announcements promise significant increases in capacity and reductions in costs relative to traditional telecommunications networks.
- The growth in the variety and complexity of telecommunications services has led to increasing demands among large multi-location business customers for a single or primary supplier to provide a bundle of local, long distance and data services on a national and even international

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7. Decision Resources, December 5, 1995, p. 1.

8. Yankee Group estimate, cited in JP Morgan, Industry Update, Nov. 14, 1997, p. 4.

9. http://www.qwest.com/press/041398.html; http://www.l3.com/technology.html http://www.frontiercorp.com/about/news/1998429-839862952.html; http://www.sprintbiz.com/ion/press.html